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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,532	08/01/2001	John Canning	CU-2533 RJS	5910
7590	06/30/2004		EXAMINER	
Thomas F Peterson Ladas & Parry 224 South Michigan Avenue Suite 1200 Chicago, IL 60604			WARREN, MATTHEW E	
			ART UNIT	PAPER NUMBER
			2815	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/831,532	CANNING, JOHN	
	Examiner	Art Unit	
	Matthew E Warren	2815	RE

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 26 January 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1-8 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-8 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

This Office Action is in response to the RCE and Amendment filed on January 26, 2004.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amersfoort et al. (US 5,805,755) in view of Tumminelli et al. (US 5,365,538).

In re claim 1, Amersfoort et al. shows (fig. 1) a laser system comprising at least one array of closely spaced diodes 12 arranged to emit radiant pump energy (col. 2, lines 33-45), and a plurality of waveguides 14 spaced adjacent the array, each waveguide being arranged to lase upon exposure to the radiant pump energy emitted from the diodes. Amersfoort teaches an end-pumped laser having all of the elements of the claims except the waveguides being arranged so that the a substantial portion of an axial length of the waveguides are exposed to the diodes. Tumminelli et al. shows (fig. 1) a side-pumped waveguide laser having a diode facing an axial length of adjacent waveguides (44, 46). With the configuration of a side-pumped laser, the diode is more easily coupled and the laser is more easily pumped (col. 1, lines 35-65). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the end-pumped waveguide laser of Amersfoort by forming the array of

diodes adjacent an axial length of the waveguides as taught by Tumminelli to easily couple and pump the waveguide laser.

In re claim 2, Amersfoort et al. discloses that the waveguides lase at different frequencies (col. 7, lines 37-39).

In re claim 3, Amersfoort et al. shows that the system further comprises a coupler (16) for coupling laser outputs of individual ones of the waveguides to form a combined laser output.

In re claim 4, Tumminelli et al. discloses (col. 3, lines 34-48) a waveguide for a laser system which further comprises a reflection means spaced closely adjacent the waveguides and the array for reflecting the radiant pump energy emitted from the array back onto the waveguides.

In re claim 5, Amersfoort et al. discloses that the plurality of waveguides comprise a series of optical fibers (col. 2, line 40).

In re claim 6, Tumminelli et al. discloses (col. 4, lines 20-29) that the plurality of waveguides comprise a series of planar waveguides.

In re claim 7, Amersfoort et al. discloses that the waveguides form a multi-mode interference device (col. 1, lines 49-67).

In re claim 8, Amersfoort et al. discloses that the waveguides are formed as part of a multimode waveguide structure which can be interconnected to a single mode waveguide (col. 1, lines 60-64).

***Response to Arguments***

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E Warren whose telephone number is (571) 272-1737. The examiner can normally be reached on Mon-Thur and alternating Fri 9:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Tom Thomas*

TOM THOMAS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

MEW  
*MEW*  
June 25, 2004